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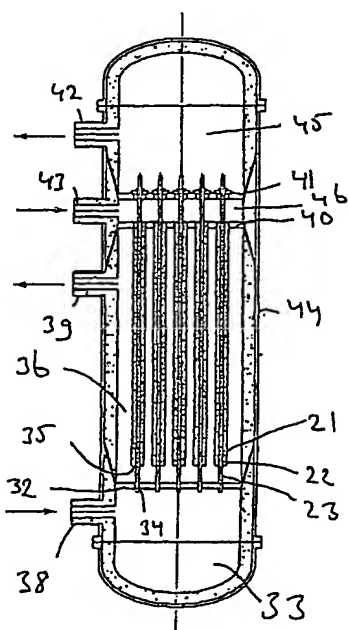
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(54) Title: PROCESS TO PREPARE SYNTHESIS GAS



(57) Abstract: Process for the preparation of hydrogen and carbon monoxide contain-
ing gas from a carbonaceous feedstock by performing the following steps: (a) partial
oxidation of a carbonaceous feedstock in an vertically oriented tubular partial oxida-
tion reactor vessel (51) comprising a burner (52) at its upper end thereby obtaining a
first gaseous mixture of hydrogen and carbon monoxide, (b) catalytic steam reforming
a carbonaceous feedstock in a Convective Steam Reformer (44) comprising a tubular
reactor provided with one or more tubes containing a reforming catalyst, wherein the
steam to carbon molar ratio of the feed to step (b) is below 1, to obtain as separate prod-
uct a steam reforming product (39), (c) feeding the steam reformer product to the upper
end of the partial oxidation reactor to obtain a mixture of the effluent of step (a) and
the steam reformer product, and (d) providing the required heat for the steam reform-
ing reaction in step (b) by convective heat exchange between the mixture obtained in
step (c) and the steam reformer reactor tubes thereby obtaining a hydrogen and carbon
monoxide containing gas having a reduced temperature.